



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,171	11/15/2001	Jackson C. Koo	IL-10814	2630

7590

02/04/2003

Alan H. Thompson
Assistant Laboratory Counsel
Lawrence Livermore National Laboratory
P.O. Box 808, L-703
Livermore, CA 94551

EXAMINER

LARKIN, DANIEL SEAN

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/919,171

Applicant(s)
KOO et al.

Examiner
Daniel Larkin

Art Unit
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 Jan 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

Art Unit: 2856

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Providing a “Langmuin-like probe” or a “Langmuir-like probe” as recited in claims 11 and 13.

Providing a member having a “painted end” as recited in claim 11.

Providing a “braised” resistor as recited in claim 18.

Claim Rejections - 35 USC § 112

2. Claims 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention.

Re claim 11, claim line 4: The term “Langmuin-like probe” is deemed to be indefinite because one is unclear as to what types of probes are considered Langmuin-like and which types of probes are not.

Re claim 13, claim line 6: This entire clause is redundant. Claim lines 4 and 5 have already established that the annular tubes are mounted within the outer annular tube.

Re claim 13, claim line 7: The term “Langmuir-like probe” is deemed to be indefinite.

Re claim 13, claim line 8: The phrase “the pointed end” lacks antecedent basis.

Art Unit: 2856

Re claim 14, claim lines 1: This claim has been made to depend from itself (claim 14).

Re claim 15, claim line 2: The phrase "the pointed end said solid anode, and said pair..." does not make sense. A -- comma -- would appear to be necessary after the term "end".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15 and 17-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by "Glow Discharge Detector" (Koo et al.).

With respect to the limitations of claims 1-4, 11, and 13, the reference to Koo et al., page 3, lines 3 and 4 from bottom, discloses a hand-held glow discharge detector having a first annular member formed from glass; a pair of annular stainless steel tubes acting as an anode and cathode aligned within the glass tube; a first member having a tapered end formed from tungsten mounted in a first one of the pair of annular members; and a second member formed from a tungsten pin/solid member mounted in a second one of the pair of annular members.

Art Unit: 2856

With respect to the limitations of claims 8-10, 12, and 18, reference to Figure 1 shows a power supply, a capacitor, and a plurality of resistors. The capacitor is connected intermediate a pair of resistors. Additionally, the resistors provided have differing resistances.

With respect to the limitations of claim 14, the reference states, page 3, text lines 25-27, that the stainless annular tubes are pinched to lock the tungsten pins within the tubes.

With respect to the limitations of claims 15, 19, and 20, the reference states, page 3, text lines 27-30, that the two annular stainless steel tubes are aligned within the outer glass tube and sealed within the outer tube with epoxy. Additionally, the tapered first member and the second member are each mounted in the pair of annular members, which are in turn mounted within the first annular member.

With respect to the limitations of claim 7, the reference states that the tapered member is a pin, thus having a point, and is located adjacent to the second pin/solid member.

With respect to the limitations of claim 17, the reference states, page 3, lines 3 and 4 from bottom, that the first pin and the second pin/solid member are formed from tungsten.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2856

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Glow Discharge Detector” (Koo et al.).

The reference to Koo et al., page 3, lines 3 and 4 from bottom, discloses a hand-held glow discharge detector having a first annular member formed from glass; a pair of annular stainless steel tubes acting as an anode and cathode aligned within the glass tube; a first member having a tapered end formed from tungsten mounted in a first one of the pair of annular members; and a second member formed from a tungsten pin/solid member mounted in a second one of the pair of annular members.

With respect to the limitations of claim 16 and 22, reference to Figure 2 of the Koo et al. reference shows that the pair of stainless steel annular tubes are partially located within the interior of the outer glass tube. The reference, however, fails to disclose/show the embodiment having a two tungsten pins located within the two annular stainless steel tubes. The Examiner argues that the new embodiment would function in a like manner as the embodiment shown in Figure 2 of Koo et al.; or alternatively, one of ordinary skill in the art would have the required ability to manufacture and use a glow discharge detector having partially located annular stainless steel tubes within an outer glass tube.

With respect to the limitations of claim 21, reference to Figure 2 shows that the member with the tapered end extends partially from one of the pair of stainless steel annular tubes. The

Art Unit: 2856

reference, however, fails to disclose/show the embodiment having a two tungsten pins partially located within the two annular stainless steel tubes. The Examiner argues that the new embodiment would function in a like manner as the embodiment shown in Figure 2 of Koo et al.; or alternatively, one of ordinary skill in the art would have the required ability to manufacture and use a glow discharge detector having a tapered end member and a solid member each partially located within the stainless steel annular members.

Response to Arguments

7. Applicants' arguments filed 14 January 2003 have been fully considered but they are not persuasive.

With respect to Applicants' argument that the article to Koo et al. fails to teach a "solid member mounted in another of said pair of annular members" of a "solid anode", the Examiner respectfully disagrees. Figure 2 of the Koo et al. article appears to show that the member with the tapered end is a solid pin. The reference further states that two pins mounted within stainless steel annular tubes may be utilized in place of the embodiment shown in Figure 2 of the Koo et al. article. The claims do not preclude the use of a pin as a solid anode or solid member as far as the Examiner interprets the claim. The claims do not give any guidance to the shape of the solid member. Applicants note that the solid member is illustrated as reference numeral 13' in Figure 3 of the application, however, the claims do not in any way suggest a solid cylinder as Applicant appears to be inferring.

Art Unit: 2856

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel Larkin whose telephone number is (703) 308-6724. The Examiner can normally be reached on Monday-Friday from 7:00 AM - 4:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Hezron E. Williams, can be reached on (703) 305-4705. The FAX telephone number for this Technology Center (TC 2800, unit 2856) is (703) 308-7382.

Application/Control Number: 09/919,171


Page 8

Art Unit: 2856

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Daniel Larkin

28 January 2003


DANIEL S. LARKIN
PRIMARY EXAMINER